## 1- What is the definition of scientific paper?

A scientific paper is a written and published report describing original research results.

- Must be written in a certain way.
- Must be published in a certain way.
- Must meet the test of valid publication.

## 2- What are the importance of scientific research?

- Discover facts.
- Solve problems.
- Answer questions.
- **Explain unclear phenomena.**
- Modify incorrect facts.

# **3- What is the concept of scientific research?**

It is a set of rules used to reach the truth in science.

#### 4- What are the fundamental of scientific research?

- Define a problem.
- Define objectives.
- Apply procedures.
- Collect data.
- Data analysis.
- Have results.

#### 5- What are the rules of scientific research?

- Select a topic.
- Prepare a plan.
- Collect sources and references.
- Collect scientific material (data).
- Document and write the research.

### 6- What are types of scientific writing?

- Review Paper.
- New Idea.
- Incremental Improvement.
- Negative Contribution.
- Poster.
- Workshop Paper.
- Conference Paper.
- Journal Paper.
- Abstracts.
- Books.
- Thesis/Dissertation.
- Research Proposals

### 7- What is the definition of scientific report?

A scientific report is a systematic, well organized document which defines and analyze a clear purpose that describes the process, progress, and results of a scientific research problem.

# 8- What is the importance of scientific report?

The purpose of a scientific report is to inform, not to impress the reader with how much you know or have read, or to gloss over what you don't know.

### 9- What is the difference between: scientific paper, research paper, and essay?

<u>Scientific paper</u>: is a written and published report describing original research results, have pictures and diagrams, has peer review, and published in a journal within the scientific community

<u>Research paper</u>: is an essay in which you explain what you have learned after exploring your topic in depth. It includes any gathering of data, information and facts for the advancement of knowledge

**Essay**: is short piece of writing written from an author's personal point of view, it presents an argument, always needs references, rarely uses graphics

### 10- What is the difference between research proposal and research report?

Research Proposal	Research Report
Describe what the researcher intends to do and why he intends to do it	Describe what the researcher has done, why he has done it, and the results he has achieved.
Written at the beginning and before the research project actually begins	Completed after the completion of the whole research project
Contain sections such as introduction/background, literature review, research questions, methodology, aims and objectives	Contain sections such as introduction/background, literature review, research questions, methodology, aims and objectives, findings, analysis, results, conclusion, recommendations and citations
Shorter in length	Longer than research proposals

### 11- What are the structure of scientific paper?

#### Introduction

- Background contextual information:
- What is being investigated.
- The significance of your research.
- What previous studies have found in this area.
- Aims and hypothesis.

## Body Section

- Methods: a precise and concise explanation of what you did. It is important that this is written in such a way that it could be replicated by other researchers.
- Results: present your findings with appropriately and clearly presented graphs, tables, charts, and explanations.

#### Discussion

- The discussion is an important section of your report and is often the most challenging to write. This is where you present the analysis of what your findings mean.
- The final paragraph of your discussion is the conclusion which is a brief summaries of the findings and may reemphasis the key message of your report.

# 12- What is the difference between abstract and summary?

Abstract	Summary
Is a concise summary found at the beginning of a research article	Is a brief statement or account of the main points of a longer work
Is a type of a summary	Can be synopsis, abstract or an executive summary
Should contain the research purpose, methods, results, conclusion and recommendations	Should contain the focal points of the original work

### 13- What are key stages in scientific writing?

- Define the purpose, title and readership of the report.
- Design a suitable structure with appropriate headings and sub-headings.
- Gather all the relevant material and note down the main points under the appropriate headings and subheadings
- Think about appropriate diagrams to illustrate the text; prepare draft versions of these before starting to write.
- Write a rough first draft as quickly as possible; it is good idea to do this directly on PCs – writing things out long-hand is time-consuming.
- Write the final version, carefully checking all facts, references, figures, etc.; make sure that the text flows smoothly; check that you have used paragraphs appropriately; check for spelling mistakes; check that you have used correct grammar and punctuation.
- Write an ABSTRACT or EXECUTIVE SUMMARY; this should be done last and should summarize the main issues and conclusions of the report.
- Get a friend or colleague to read through the report to see how clear and comprehensible it is.

### 14- What are the characteristics of good scientific writing?

- Clarity: avoid unnecessary detail.
- Simplicity: avoid complicated sentences.
- Impartiality: avoid making assumptions and unproven statements.
- Structured logically: express ideas in a logical order.
- Accurately: avoid vague and ambiguous language.
- Objectively: statements and ideas are supported by appropriate evidence.

## 15- What are the contents of scientific paper?

- Abstract.
- Introduction.
- Geological Setting.
- Methodology.
- Results.
- Discussion.
- Conclusion.
- Acknowledgments
- References.

## 16- What are the steps to write a scientific report?

- Choose a Topic.
- Do Library Research.
- Narrow Your Topics.
- Read Actively and Make Notes.
- Plan.
- Write and Revise.
- Document Your Sources.
- Proofread.

## 17- What makes a great researcher?

- Great knowledge.
- Good ideas.
- Good writing.
- Good plan.
- Great communication.

# 18- How to read a scientific article?

- Read the abstract.
- Read the conclusion.
- Read the first paragraph or the introduction.
- Read the first sentence of every paragraph.
- Read the rest of the article.